AKUTIN, M.S.

33285
S/191/62/000/002/005/008
B127/B110

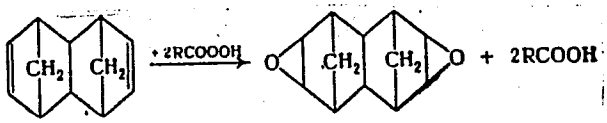
15.8121 1407

AUTHORS: Gosteva, O. K., Libina, S. L., Pryanishnikova, M. A., Akutin, M. S., Plate, A. F.

TITLE: Production of 2,3,6,7-dioxide of 1,4,5,8-di-endomethylene-1,4,4a,5,8,8a-hexahydro naphthalene

PERIODICAL: Plasticheskiye massy, no. 2, 1962, 55

TEXT: According to J. A. Trigaux (Modern Plastics, 38, no. 1, 147 (1960)), specially heat-resistant epoxy resins are obtained on the basis of dicyclopentadiene. In the present study, 1,4,5,8-diendomethylene-1,4,4a,5,8,8a-hexahydronaphthalene developing from bicyclo-(2,2,1)-hepta-diene-2,5 and cyclopentadiene was investigated. In the epoxy resinifica-tion of diendomethylene hexahydro naphthalene with monoperphthalic acid in ether at 30°C, a hitherto unknown dioxide was obtained:



II III

Card 1/2

Production of 2,3,6,7-dioxide...

The yield was 50 %. The monomer forms white crystals, melting point 179.5°C. II is a byproduct of the manufacture of the insecticide "aldrin". The analysis of the C- and H content corresponded to the formula $C_{12}H_{14}O_2$. The infrared spectrum of the dioxide shows an intensive line at 847 cm^{-1} which belongs to the C-O group in the epoxy group. The disappearance of the line at 1570 cm^{-1}, which corresponds to the C=C double bond, proves completeness of resinification. The absence of the line in the range 3200-3600 cm^{-1}, characteristic of hydroxyl groups, confirms the purity of the product obtained. There are 1 figure and 5 references: 3 Soviet and 2 non-Soviet. The reference to the English-language publication reads as follows: O. D. Shreve, M. R. Heether, H. B. Knight, D. Swern, Anal. Chem., 23, 277 (1951).

Card 2/2

15.8070

41914
S/191/62/000/011/006/019
B101/B186

AUTHORS: Akutin, M. S., Korshak, V. V., Rodivilova, L. A., Vinogradova, S. V., Budnitskiy, Yu. M., Valetskiy, P. M., Lebedeva, A. S.

TITLE: New data on processing and properties of polyarylates

PERIODICAL: Plasticheskiye massy, no. 11, 1962, 20-26

TEXT: This paper deals with experiments for determining the optimum processing conditions of polyarylates from isophthalic acid and diane (ID), terephthalic acid and diane (TD), and the mixed polymer ITD (ratio iso- to terephthalic acid 1:1). Preliminary experiments showed that the interfacial polycondensation in more concentrated solutions than hitherto usual gave polymers with low molecular weight: thus 13.5% by weight of diane in NaOH solution + 15-20% by weight of isophthalic dichloride in methylene chloride yielded a polymer with MW ~18,000. A better result was obtained for ITD in the presence of 1% triethyl benzyl ammonium chloride as catalyst: the reduced viscosity in tricresol was 0.58. Injection-molded products were made from ID, TD, and ITD, and tested. Results:

Card 1/3

New data on processing and ...

(1) At 280-360°C, ID and TD can be processed only in inert gas atmosphere since thermal destruction occurs if air is present. ITD can still be processed at these temperatures in the presence of air. (2) The strength of products depends on the molecular weight (or on the reduced viscosity). Adequate tensile strength ($\sim$ 400 kg/cm^2) is attained above $\eta_{red.}$ = 1.0. Products with a tensile strength of 850-900 kg/cm^2 were obtained from ITD with η_{red} = 1.9-2.0. (4) The tensile strength drops from 820 kg/cm^2 at 280°C to 480 kg/cm^2 at 340°C. (5) The effect of the molding time becomes manifest the tensile strength dropping from 850 kg/cm^2 after 10 min to 300 kg/cm^2 after 30 min molding time. (6) A change in molding pressure has no effect on the tensile strength. (7) Increasing the temperature of the mold from 80 to 160°C increases the tensile strength from 650 to 820 kg/cm^2, but a further increase (to 200°C) reduces the tensile strength. (8) A study of the chemical stability of injection-molded specimens and films showed: good stability to mineral and organic acids, oxidants, and dilute alkalis; poor stability to concentrated alkalis, particularly ammonia; swelling in some solvents, injection-molded specimens being more stable than films. The chemical stability of polyarylates resembles that of polycarbonates, and is inferior to that of polyethylene terephthalate

Card 2/3

S/191/62/000/011/006/019
B101/B186

New data on processing and ...

only as regards the swelling in some organic solvents. There are 8 figures and 6 tables.

Card 3/3

KNYAZEVA, T.S.; KORSHAK, V.V.; AKUTIN, M.S.; KULEVA, M.M.; VINOGRADOVA, S.V.; RODIVILOVA, L.A.; NEDOPEKINA, T.P.; VALETSKIY, P.M.; MOROZOVA, S.A.; SALAZKIN, S.N.

Possibility of using various polyarylates as insulating film materials. Plast. massy no.12:37-40 '62. (MIRA 16:1)
(Acids, Organic) (Polymers) (Insulating materials)

GOLUBENKOVA, L.I.; SHABADASH, A.N.; NIKONOVA, S.N.; AKUTIN, M.S.

Grafting of polymers to solid surfaces. Part 1: Study of the interaction of organosilicon compounds with glass based on infrared absorption spectra. Vysokom.soed. 4 no.9:1354-1360 S '62. (MIRA 15:11)

1. Nauchno-issledovatel'skiy institut plasticheskikh mass.

(Glass)
(Silicon organic compounds)

S/191/63/000/001/004/017
B101/B186

AUTHORS: Vlasova, K. N., Antropova, N. I., Akutin, M. S., Samokhvalov, A. V., Sharova, A. V.

TITLE: Caprolon

PERIODICAL: Plasticheskiye massy, no. 1, 1963, 18-19

TEXT: Large machine parts ranging up to 600 mm diameter and 50 kg weight were experimentally produced at NIIPM by polymerizing caprolactam. Sodium metal, K_2O, or Na_2O were used at initiators, and acetyl caprolactam, benzoyl chloride, CO_2, etc., as activators. These plastics, caprolon B(B) and caprolon C (S), have the following properties: density 1.15-1.16 g/cm^3; impact strength 110-160 kg·cm/cm^2; bending strength 1250-1500 kg/cm^2; elastic modulus in tension 20,000-23,000 kg/cm^2; Brinell hardness 20-26 kg/mm^2; water absorption in 24 hrs 1.5-2.0%; intrinsic viscosity 2.0-2.5; content of water-soluble substances 5-8%; shrinkage in polymerization 4-5%. Caprolon gears bearing bushings for machine tools, and engine gear units have been tested, some of them for 10-18 months. Attempts are

Card 1/2

Caprolon

S/191/63/000/001/004/017
B101/B186

being made to produce specimens of 2 m diameter and to produce caprolon by a continuous process. There is 1 figure.

Card 2/2

ACCESSION NR: AP3001579 S/0191/63/000/006/0026/0029

AUTHOR: Akutin, M. S.; Kotrelev, V. N.; Kovarskaya, B. M.; Kostryukova, T. D.; Tarasov, V. V.; Sidnev, A. I.; Rodin, E.; Nitche, O. N.; Neyman, M. B.

TITLE: Casting of polycarbonates under pressure.

SOURCE: Plasticheskiye massy, no. 6, 1963, 26-29

TOPIC TAGS: Diflon, polycarbonate, thermal oxidation

ABSTRACT: The change in molecular weight and mechanical properties of a polycarbonate "Diflon" under laboratory oxidation and on pressure-casting was studied. Polycarbonates are destroyed more rapidly by pressure casting than by thermal oxidation. Apparently, this acceleration is combined with the presence of mechanical destruction. The minimum amount of time and temperature for transforming the polymer to the viscous-flowing state should be used in order to reduce the extent of destruction. Orig. art. has: 9 figures, 1 table and 1 equation.

ASSOCIATION: none

SUBMITTED: 00 DATE ACQ: 01Jul63 ENCL: 00

Card 1/2

ACCESSION NR: AP3001579

SUB CODE: 00 NO REF SOV: 005 OTHER: 003

Card 2/2

ACCESSION NR: AP3003302 S/0191/63/000/007/0013/0016

AUTHOR: Vlasova, K. N.; Dobrokhotova, M. L.; Akutin, M. S.; Dukor, A. A.; Chudina, L. I.

TITLE: Glass-reinforced plastics based on low-molecular-weight polyamide and epoxy resins

SOURCE: Plasticheskiye massy, no. 7, 1963, 13-16

TOPIC TAGS: plastics, glass-fabric-reinforced plastics, epoxy resins, phenolic resin, organosilicon resin, glass fabric, curing agents, polyamide resins, water resistance, dielectric properties, EN-L, L-18, L-19, L-20, ENF 15/1, ENK-1 TFE-9, GVS-9.

ABSTRACT: Because low-molecular-weight polyamide resins—oligoamides—are nontoxic curing agents and plasticizers for epoxy resins, formulations based on such resins and amides were studied as binders for glass-fabric-reinforced

Card 1/3

ACCESSION NR: AP3003302

plastics (RP). Resins EN-L (copolymer of ED-5 epoxy resin with an oligoamide (L-18, L-19, or L-20) based on linseed oil esters), ENF 15/1 (phenolic-resin-modified EN-L), and ENK-1 (modified TFE-9 organosilicon resin cured with oligoamides) were tested as binders, and glass fabrics AST T(b) 16/10, satin 8/3, and satin TS 8/3, as reinforcements. The best physicomechanical properties were exhibited by RP reinforced with the satin fabrics. AGM-3, GKZh11/12, and GVS-9 finishes were tested. GVS-9 was the most effective in enhancing the RP's binder-to-reinforcement adhesion and water repellency. Study of the effect of the three oligoamides and of different amide/epoxy ratios on the properties of RP showed that, depending on the amide used, the optimum amide concentration in the binder varies from 20 to 50%. Hence, desired properties of RP can be obtained by selecting the appropriate amide and ratio. Study of manufacturing techniques revealed that RP molded at 100C and less than 5 kg/cm^2 have good physico-mechanical properties and can be produced in cheap metal-plastic molds or by contact molding. For example, RP molded at 2 kg/cm^2 had an impact strength of 259—415 kg cm/cm^2, a Brinell hardness of 49.8—60.9 kg/mm^2, a bending

Card 2/3

ACCESSION NR: AP3003302

strength of 6010—7010 kg/cm^2, a tensile strength of 5840—6480 kg/cm^2, and an elastic modulus in bending of (1.6—2.00) 10^5 kg/cm^2 and in tension of (3.65—3.7) 10^5 kg/cm^2. Additional heat treatment can further improve water resistance, impact strength, and hardness 10—15%. Pot life of the binder can best be increased by the technique of applying amide resin on one side and epoxy resin on the other side of each fabric sheet prior to molding. Two-hour boiling tests indicated that RP based on ENF 15/1 (5% or more phenolic resin) were more water resistant than RP based on EN-L. RP based on ENK-1 had poorer physicomechanical properties than RP based on EN-L but were more heat resistant. The new RP are recommended for use in the electrical and radio industries because of their good dielectric properties.

ASSOCIATION: none

SUBMITTED: 00 DATE ACQ: 30Jul63 ENCL: 00

SUB CODE: 00 NO REF SOV: 003 OTHER: 001

Card 3/3

AKUTIN, M.S.; TIKHOMIROVA, N.S.; YERMOLAYEV, A.D.

Preparation of polyformaldehyde by means of radiation polymerization of trioxane. Plast.massy no.12:12-13 '63. (MIRA 17:2)

L 18376-63 EWP(j)/EPF(c)/EWT(m)/EWP(q)/BDS ASD/ESD-3 Pc-4/Pr-4
ACCESSION NR: AP3005447 RM/WW/JD S/0204/63/003/004/0515/0517

AUTHOR: Paushkin, Ya. M.; Akutin, M. S.; Nizova, S. A.

TITLE: Preparation of polyconjugated systems by the reaction of α, β-dibromides with calcium oxide

SOURCE: Neftekhimiya, v. 3, no. 4, 1963, 515-517

TOPIC TAGS: conjugated polymer, polyvinylene, conjugation, semiconductor, organic semiconductor, dehydrohalogenation, polyphenylacetylene, (1,2-dibromoethyl)benzene, 2,3-dibromopropionitrile, (1,2-dibromoethyl)benzene—2,3-dibromopropionitrile copolymer, copolymer, calcium oxide, EPR, IR, electron paramagnetic resonance, infrared spectrum, α, β-dibromide

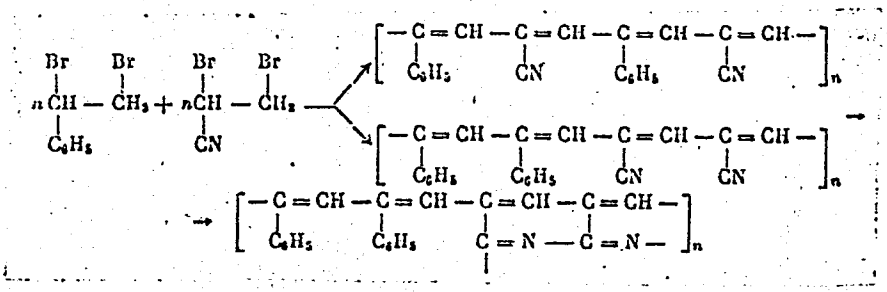
ABSTRACT: A method has been proposed for preparing conjugated polymers (polyvinylenes) by dehydrohalogenation of α, β-dibromo organic compounds with metal oxides or hydroxides. The method has been used to synthesize 1) polyphenylacetylene (PPA) from (1,2-dibromoethyl)benzene (I) and 2), evidently for the first time, a copolymer of I and 2,3-dibromopropionitrile (II). Reaction 1 was carried out in the presence of CaO (I/CaO molar ratio, 1/2) at 180, 200, 250,

Card 1/4

or 300C for 2, 4, or 6 hr; the PPA was purified by multiple reprecipitation. The PPA yield was 66—67%. Polydispersity of the PPA prepared at 200C for 6 hr was determined by fractional precipitation. Four fractions were obtained which were yellow to black in color, softened at 175—182 to 250C, and had molecular weights of 600—1600. The average molecular weight was 1000—1100. Reaction 2 was carried out at 200C for 6 hr, with a I/II molar ratio of 1/1. The copolymer was dark brown, slightly soluble in formamide, and highly soluble in concentrated sulfuric, hydrochloric, or phosphoric acid; its softening point was below 450C. The thermomechanical curve for PPA of molecular weight 1600 showed that it can exist in the glassy or liquid state, but not in the high-elastic state. EPR and IR spectra for PPA and the copolymer confirmed their polyconjugated structure. All the PPA fractions except that having the lowest molecular weight showed a narrow EPR signal with an unpaired-electron concentration of 10^{17}/g; in the copolymer this concentration was 2.7×10^{18}/g. The IR spectrum of PPA was identical with those obtained by Yu. Sh. Moshkovskiy, N. D. Kostrova, and A. A. Berlin. (Vy*sokomol. soyedineniya, 3, 1669, 1961).

L 18376-63
ACCESSION NR: AP3005447

IR spectra suggest the following course for the copolymerization:



It is assumed that by varying the initial dibromo compound, conjugated polymers with various aryl and alkyl side groups can be obtained. Orig. art. has: 2 formulas, 1 table, and 1 figure.

Card 3/4

L 18376-63

ACCESSION NR: AP3005447

ASSOCIATION: Moskovskiy institut neftekhimicheskoy i gazovoy promy*shlennosti im. I. M. Gubkina (Moscow Institute of the Petrochemical and Gas Industry); Nauchno-issledovatel'skiy institut plastmass (Scientific Research Institute of Plastics)

SUBMITTED: 20Nov62 DATE ACQ: 06Sep63 ENCL: 00

SUB CODE: CH, MA NO REF SOV: 001 OTHER: 002

Card 4/4

L 10624-63 EPF(c)/EPR/EWP(j)/EWT(m)/BDS/ES(s)-2--AFFTC/ASD/SSD--Pr-4/Ps-4/Pc-4/Pt-4--RM/MAY/WW

ACCESSION NR: AP3000688 S/0190/63/005/005/0649/0654

82
81

AUTHOR: Kovarskaya, B. M.; Akutin, M. S.; Sidnev, A. I.; Yazvikova, M. P.; Neyman, M. B.

TITLE: Investigation of the thermooxidative decomposition of a polycarbonate

SOURCE: Vysokomolekulyarnyye soyedineniya, v. 5, no. 5, 1963, 649-654

TOPIC TAGS: Diflon, polycarbonate, thermooxidative degradation, thermooxidative decomposition

ABSTRACT: The thermooxidative degradation of the Soviet polycarbonate "Diflon" (mol. wt., 18,000) has been studied. Thermooxidation was carried out at 240 to 300C and 92 to approximately 700 mm Hg of oxygen with equipment described previously by the authors (M. B. Neyman, B. M. Kovarskaya, M. P. Yazvikova, A. I. Sidnev, M. S. Akutin, Vysokomolek. soyed., 3, 602, 1961). It was found that the initial rate of change of pressure in the system, i.e., the oxidation rate (W_0) is directly proportional to the oxygen pressure and increases with temperature according to the law $W_0 = a \exp(-E/RT)$, where E = 36,500 kcal/mol. The weight

Card 1/2

L 10624-63

ACCESSION NR: AP3000688

O

loss of Diflon at 300C and constant initial oxygen pressure increases linearly with time after a certain initial period; the higher the initial pressure, the greater the loss. Analysis of the degradation products revealed CO_2, CO, H_2 (traces), H_2O, CH_2O, and bis(hydroxyphenyl)propane; hydroperoxides were not detected. It was concluded that the degradation is an autoaccelerating chain reaction with degenerate branchings which are evidently due to hydroperoxide decomposition. The reaction is speeded up by the presence of impurities introduced in the starting materials. Special preliminary purification of Diflon by multiple reprecipitation improved oxidation stability by about 50%. An oxidation mechanism is suggested which shows that oxidation not only gives rise to gaseous products but also alters the structure of the polymer chains in which aldehyde and hydroxy groups accumulate. This is confirmed by the fact that the thermal stability (in the absence of oxygen) of oxidized Diflon is far lower than that of the intitial Diflon, owing probably to the decomposition of the aldehyde groups and to additional oxygen-containing groups which facilitate ester bond cleavage. Orig. art. has: 10 formulas and 8 figures.

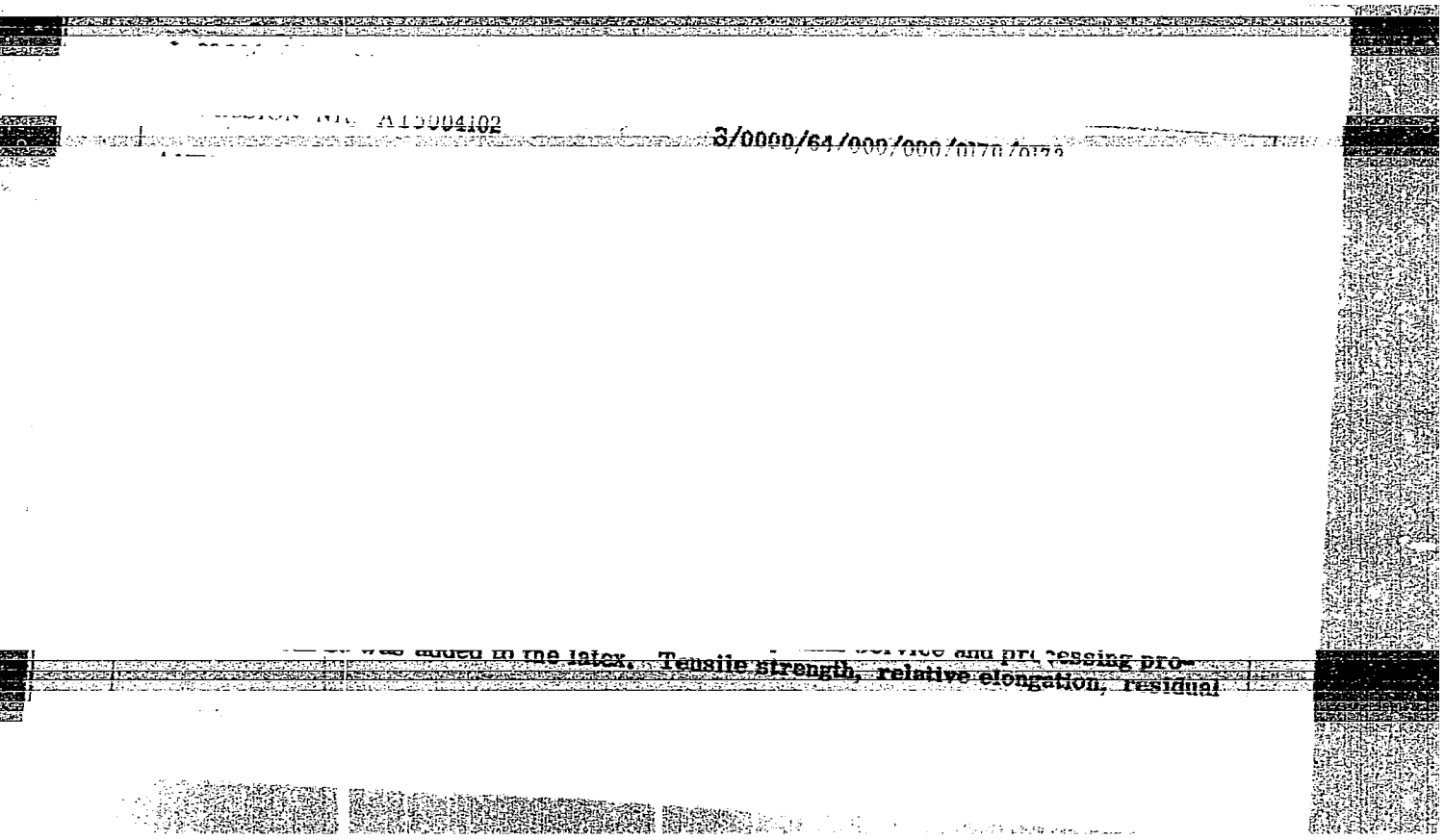
Scientific Research Institute of Plastics

Card 2/2

KANAVEC, I.F. [Kanavets, I.F.]; AKUTIN, M.S.; ROMASOVA, A.G. [Romashova, A.G.]; KARPILEVIC, V.M. [Karpilevich, V.M.]

Problem of the optimal processing methods of polyformaldehyde injection molding. Chem prum 13 no.4:209-217 Ap '63.

1. Nauchno-issledovatel'skoy institut plastmass v Moskve.



APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000100730003-7"

has: 1 figure and 3 tables.

ACCESSION NR: AP4009828 S/0191/64/000/001/0011/0013

AUTHORS: Gorbunov, V. N.; Nagibina, A. G.; Akutin, M. S.

TITLE: Thermally reactive resins based on divinyl polymers

SOURCE: Plasticheskiye massy*, no. 1, 1964, 11-13

TOPIC TAGS: divinyl oligomer, divinyl styrene oligomer, divinyl oligomer hardening, divinyl oligomer curing, dienol S., thermosetting divinyl oligomer, thermosetting resin, cast polymer, laminated plastic

ABSTRACT: The conditions for preparing divinyl and divinyl-styrene oligomers and thermally reactive compositions based thereon were investigated. The divinyl and styrene are polymerized over metallic sodium at 40-90C to form oligomers having a molecular weight of 1500-20,000. Optimum conditions for hardening the divinyl oligomers include the addition of a vinyl monomer (about 50% vinyl toluene), 4-6 wt.% of dicumyl peroxide initiator and hardening at 150-170C. The exotherms of gelation at various temperatures are presented. These resins have high physical-mechanical property indices. They

Card 1/2

ACCESSION NR: AP4009828

are suitable for production of laminated plastics and cast articles, with good water-resistant and dielectric properties. These thermally reactive materials based on divinyls are given the general name dienol S. Orig. art. has: 4 figures and 2 tables.

ASSOCIATION: None

SUBMITTED: 00 DATE ACQ: 10Feb64 ENCL: 00

SUB CODE: MA NR REF SOV: 001 OTHER: 003

Card 2/2

ACCESSION NR: AP4009830 S/0191/64/000/001/0017/0019

AUTHORS: Akutin, M.S.; Derkovskaya, I.L.; Pukhovitskaya, A.N.

TITLE: Properties of epoxy resins based on some aromatic amines

SOURCE: Plasticheskiye massy*, no. 1, 1964, 17-19

TOPIC TAGS: amines, amine derivatives, aromatic amines, aniline derivative epychlorohydrin, resin hardeners, anhydride derivatives, polyethylene polyamine, 4,4'-diaminodiphenylmethane, m-phenylene diamine, low molecular weight polyamide, p-toluidine, dielectric properties of resin, thermal stability

ABSTRACT: The thermal deformation of epoxy amaniline resins hardened with various hardeners, such as anhydrides, polyethylene polyamine, 4,4'-diaminodiphenylmethane, m-phenylenediamine and low-molecular weight polyamide L-20 at an optimum amount of 25-30% by weight of resin is investigated. The addition of hardener increased the temperature of thermal degradation to 110-140°C. Best results are obtained with m-phenylene diamine (180-200°C) and with

Card 1/2

ACCESSION NR: AP4009830

4,4'-diaminodiphenylmethane (175°C). The physico-mechanical and dielectric properties are also tabulated when maleic anhydride and polyethylenepolyamine were used as hardeners for various resins. It was found that the resin based on 4,4'-diamino diphenylmethane and epychlorohydrin has the best properties, and hardened with maleic anhydride or 4,4'-diaminodiphenylmethane, it is thermally stable up to 300°C. Thermodynamic curves obtained on a consistometer are given. Orig. art. has: 5 figures, 1 table.

ASSOCIATION: None

SUBMITTED: 00	DATE ACQ: 10Feb64	ENCL: 00
SUB CODE: MA, OH	NO REF SOV: 002	OTHER: 009

Card 2/2

AKUTIN, M.S.

Speed up the development of industries for the manufacture of goods from plastics. Plast. massy no.2:1-2 '64.
(MIRA 17:8)

ACCESSION NR: AP4039942 S/0191/64/000/006/0013/0016

AUTHOR: Rodivilova, L. A.; Akutin, M. S.; Morozova, S. A.; Pshenitsina, V. P.

TITLE: Thermal aging of film materials based on type D-4 polyarylates

SOURCE: Plasticheskiye massy*, no. 6, 1964, 13-16

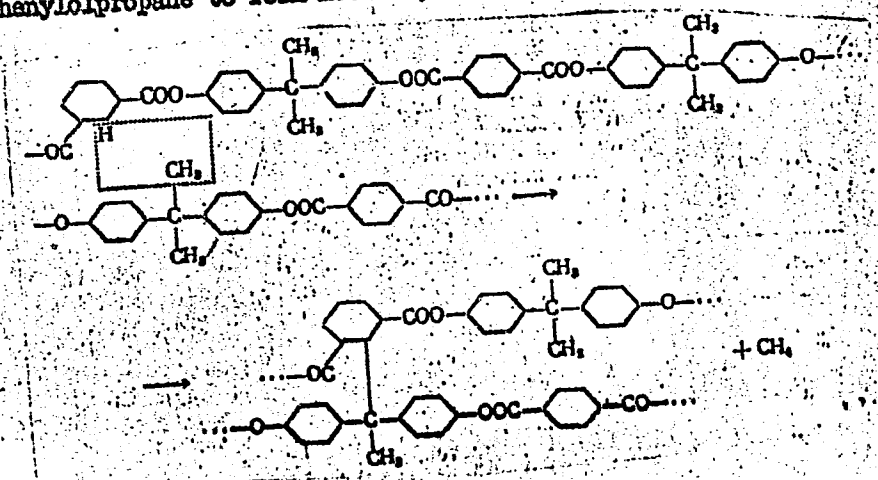
TOPIC TAGS: polyarylate, D 4 polyarylate, thermal stability, diphenylolpropane terephthalic acid condensate, diphenylolpropane isophthalic acid condensate, isophthalic terephthalic acid ratio, film strength, dielectric property, IR spectra, ester bond, methyl bond rupture

ABSTRACT: The thermal stability of type D-4 polyarylate films (condensation products of diphenylolpropane and a mixture of terephthalic and isophthalic acids) was examined. No change in film strength or dielectric properties was observed on prolonged heating at 70-100C. At 150 and 200C there was no change in strength during the initial period, the strength then increased 14-16% and then gradually decreased. The thermal stability is dependent on the isophthalic:terephthalic acid ratio in the polyarylate, a decrease in the terephthalic acid increased the thermal stability. It was established by IR spectroscopy that the D-4 polyarylate

Card 1/3

ACCESSION NR: AP4039942

does not undergo structural changes at 150C; at 200C the structural changes are primarily associated with the rupture of the $-CH_3$ group from the quaternary carbon atom in diphenylolpropane to form methane, thus:



Card 2/3

ACCESSION NR: AP4039942

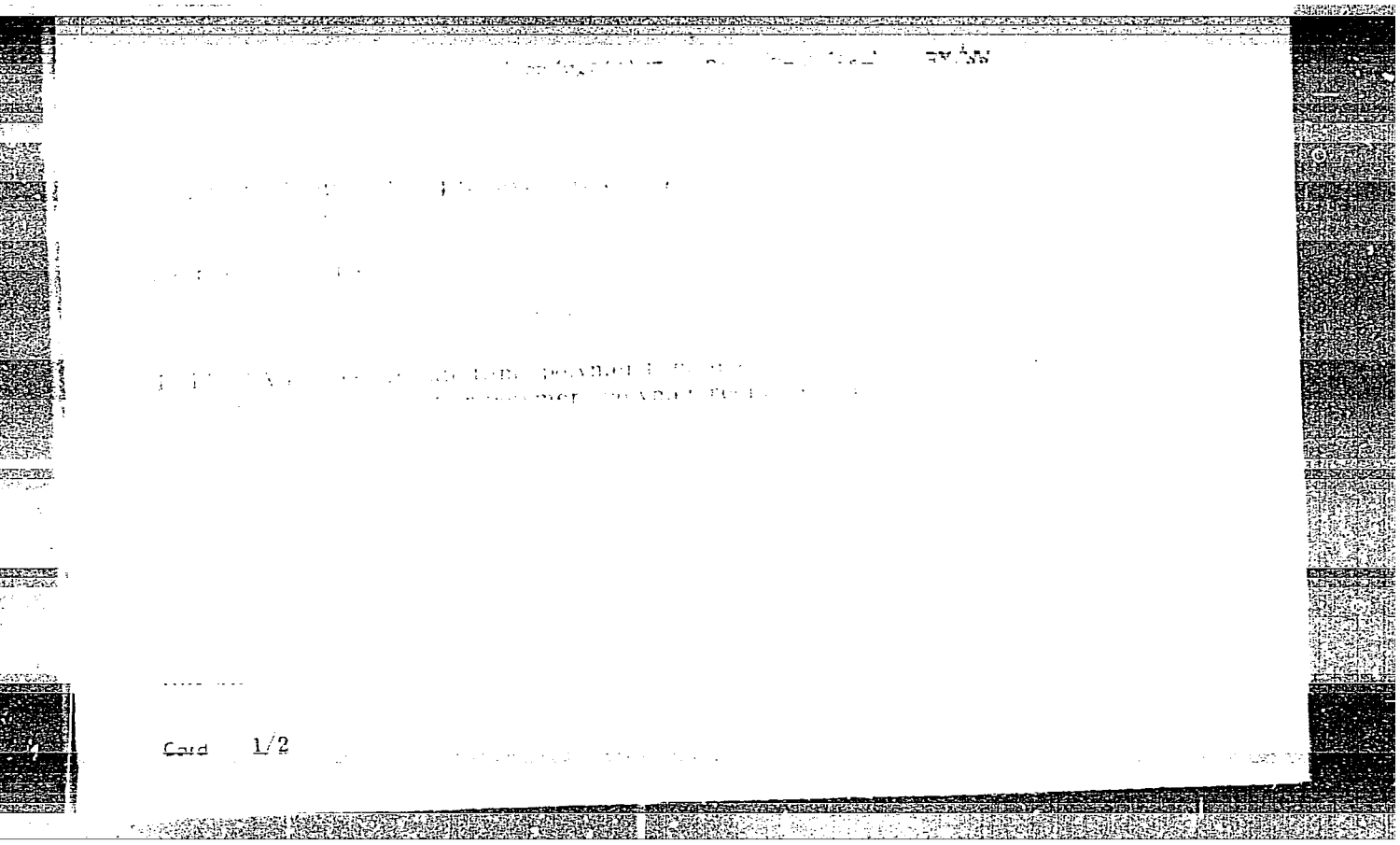
The ester bonds are stable under these conditions. Orig. art. has: 6 figures, 3 tables and 1 equation.

ASSOCIATION: None

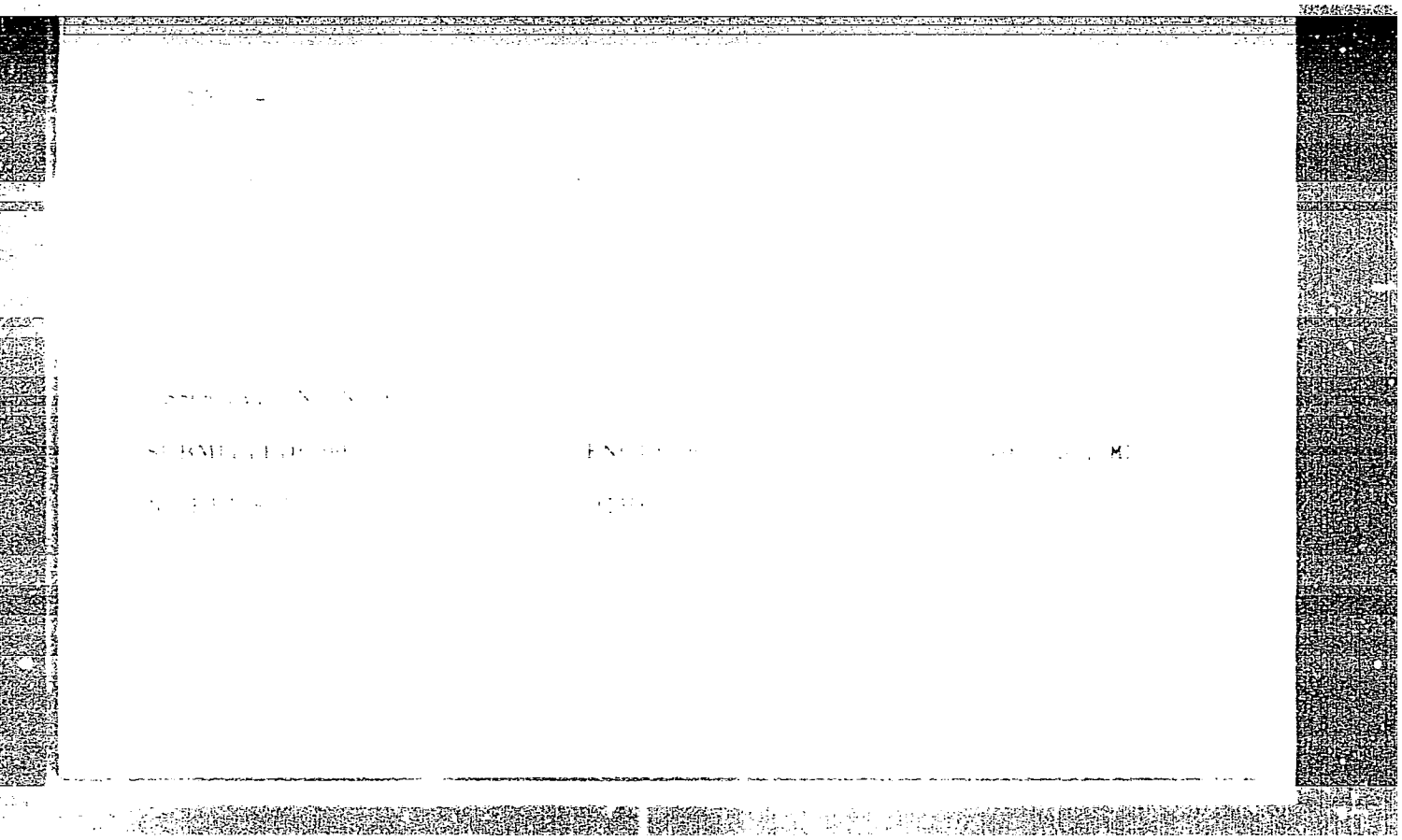
SUBMITTED: 00 ENCL: 00

SUB CODE: MT, OC NO REF SOV: 003 OTHER: 000

Card 3/3



Card 1/2



GOSTEVA, O.K.; PARBUZINA, I.L.; AKUTIN, M.S.; SOKOLOV, N.N.; RUNOVA, S.M.

Epoxy resins with higher thermal resistance. Chem prum 14 no.6: 304-306 Je '64.

1. State Research Institute of Plastics, Moscow.

ACCESSION NR: AP4012089 S/0020/64/154/002/0369/0371

AUTHORS: Akutin, M.S.; Kovarskaya, B.M.; Shabadash, A.N.; Konovalova, B.Ye.

TITLE: Pyrolytic method of block copolymer synthesis

SOURCE: AN SSSR. Doklady, v.154, no.2, 1964, 369-371

TOPIC TAGS: pyrolytic synthesis, block copolymer, free radical interaction, block copolymer synthesis, SKN 26, ED 15, nitrile rubber-epoxide tar, polyethylene-polyisobutylene mixture

ABSTRACT: The authors have used the interaction of radicals formed during thermal destruction of two or more polymers for the synthesis of block copolymers. It was expected that new types of polymer materials would be formed by recombination of radicals at moderate heating. The interaction of polymers with reactive oligomers and interaction of two polymers had been studied, specifically, the mixture (1:1) of nitrile rubber SKN 26 with epoxide tar ED 15, low pressure polyethylene and tar ED 15, and polyethylene and polyisobutylene (mol. weight 200,000). For thermal destruction, temperatures of 2500 and 2200 were

Card 1/2

ACCESSION NR: AP4012089

used for 1 hour. The solubility of one of the components of the mixture before and after heating is given in a table. Infrared spectra of the components and of the product after heating are reproduced in two figures. These data indicate that heating of mixed polymers (in the absence of oxygen) actually results in the production of block copolymers owing to recombination of radicals. Orig. art. has: 4 figures and 2 tables.

ASSOCIATION: Gosudarstvenny*y nauchno-issledovatel'skiy institut plasticheskikh mass (State Research Institute for Plastic Materials).

SUBMITTED: 24Jul63 DATE ACQ: 14Feb64 ENCL: 00

SUB CODE: CH, MA NR REF SOV: 003 OTHER: 003

Card 2/2

AKUTIN, Modest S.

"New aspects in the field of glassfiber-reinforced plastics."

"Methods of modification of the physical-chemical properties of epoxy resins."

reports submitted for 1st Intl Cong, Glassfiber-Reinforced Plastics and Epoxy Resins, Berlin-Adlershof, E. Germany, 22-27 Mar 65.

L 40989-65 EWT(m)/EPF(c)/EWP(j)/T Pc-4/Pr-4 RM
ACCESSION NR: AP5006563 S/0191/65/000/003/0043/0046

AUTHOR: Yermolina, A. V.; Andre, O. P.; Pechenkin, A. A.; Igonin, L. A.; Kotrelev, V. N.; Akutin, M. S.

TITLE: Microscopic and roentgenographic investigation of the structure of block polycarbonates

SOURCE: Plasticheskiye massy, no. 3, 1965, 43-46

TOPIC TAGS: polycarbonate structure, block polycarbonate, microscopic structure, xray diffraction, dihydroxyphenylpropane polymer, dihydroxydiphenylcyclohexane polymer

ABSTRACT: The authors studied the supermolecular structure of amorphous and crystalline PK-1 ((4,4-dihydroxyphenyl-2,2-propane)-based polycarbonate) and PK-2((4,4-dihydroxydiphenyl-1, 1-cyclohexane)-based polycarbonate) prepared recently in the SSSR, the structure and properties of which have not yet been described in the literature. The phase state and the degree of molecular orderliness of the pressure-cast slab and blade-shaped samples were assessed by the shape and intensity of X-ray scattering curves obtained in a URS-50-I diffracto-

Card 1/2

L 40989-65
ACCESSION NR: AP5006563

meter, and the secondary structure was examined by microphotographing brittle cleavage sections of samples kept for 2 hrs. in liquid nitrogen. The state of molecular orderliness of the polycarbonates was found to be closely related to the chain's chemical composition, the more complex and bulky chains of PK-2 developing poorly ordered amorphous structural patterns, inferior to the more perfect spherulitic structural patterns of PK-1. The former, however, exhibited greater impact (140-160 kg/cm^2, and tensile (800 kg/cm^2) strength than the latter. "The polymer sample was provided by the Kafedra tekhnologii vysokomolekulyarnykh soyedineniy MKhTI (Department of the Technology of Macromolecular Compounds, MKhTI)." Orig. art. has: 7 figures.

ASSOCIATION: None

SUBMITTED: 00 ENCL: 00 SUB CODE: MT

NO REF SOV: 003 OTHER: 002

Card 2/2

RODIVILOVA, L.A.; AKUTIN, M.S.; MOROZOVA, S.A.; PSHENITSINA, V.P.

Thermal aging of film materials based on type D-4 polyarylates.
Plast.massy no.6:13-16 '64. (MIRA 18:4)

RODIVILOVA, L.A.; AKUTIN, M.S.; BUDNITSKIY, Yu.M.; PROSVIRKINA, V.F.; KAMINSKAYA, L.P.

Effect of fractional composition on the mechanical properties and processing conditions of polyacrylate "D-3" and D-4." Plast. massy no.10:9-13 '64. (MIRA 17:10)

AKUTIN, M.S.; RODIVILOVA, L.A.; ZININ, Ye.F.

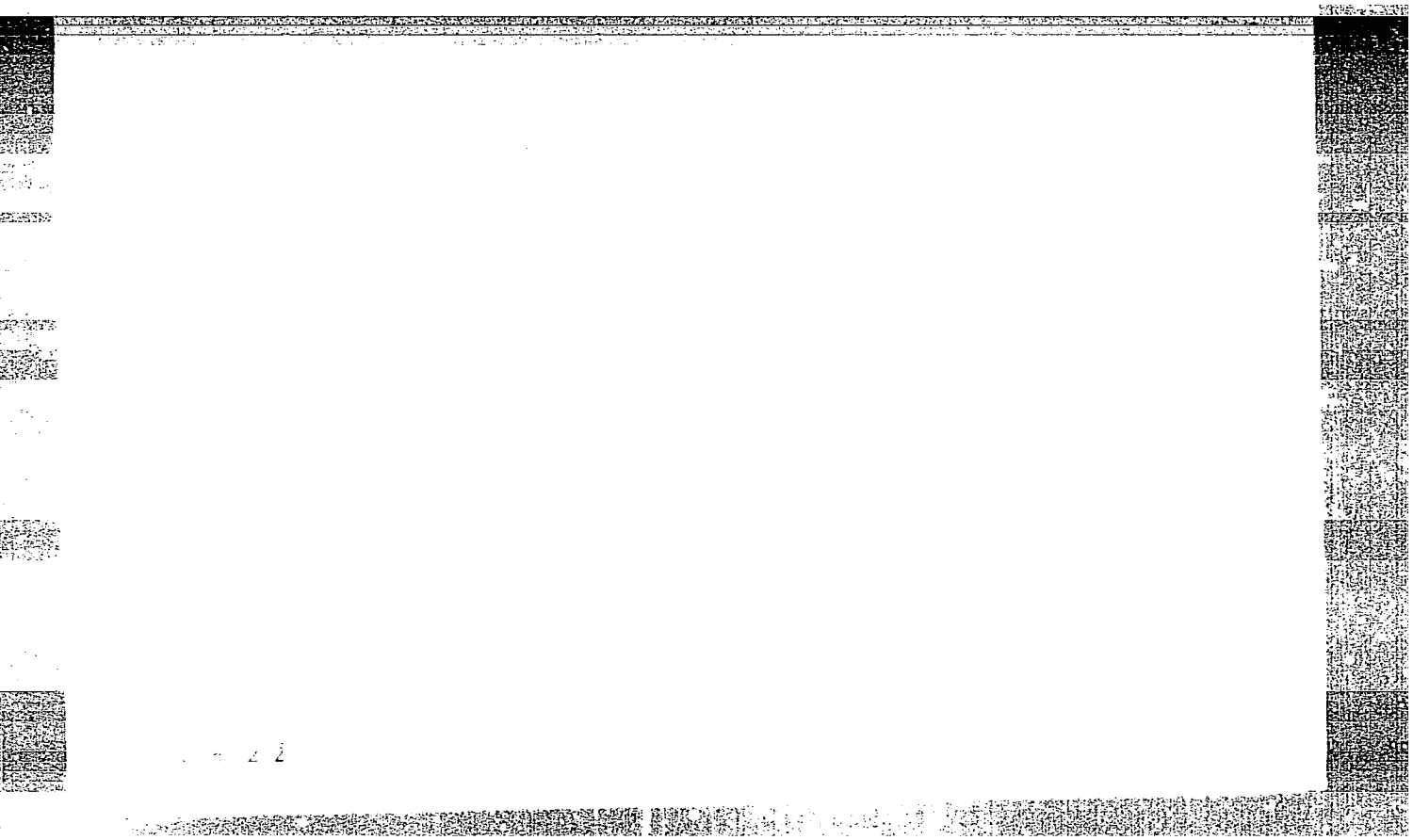
Structural and mechanical properties and orientation possibilities of D4-type polyarylate films. Plast. massy no.12:26-29 '64. (MIRA 18:3)

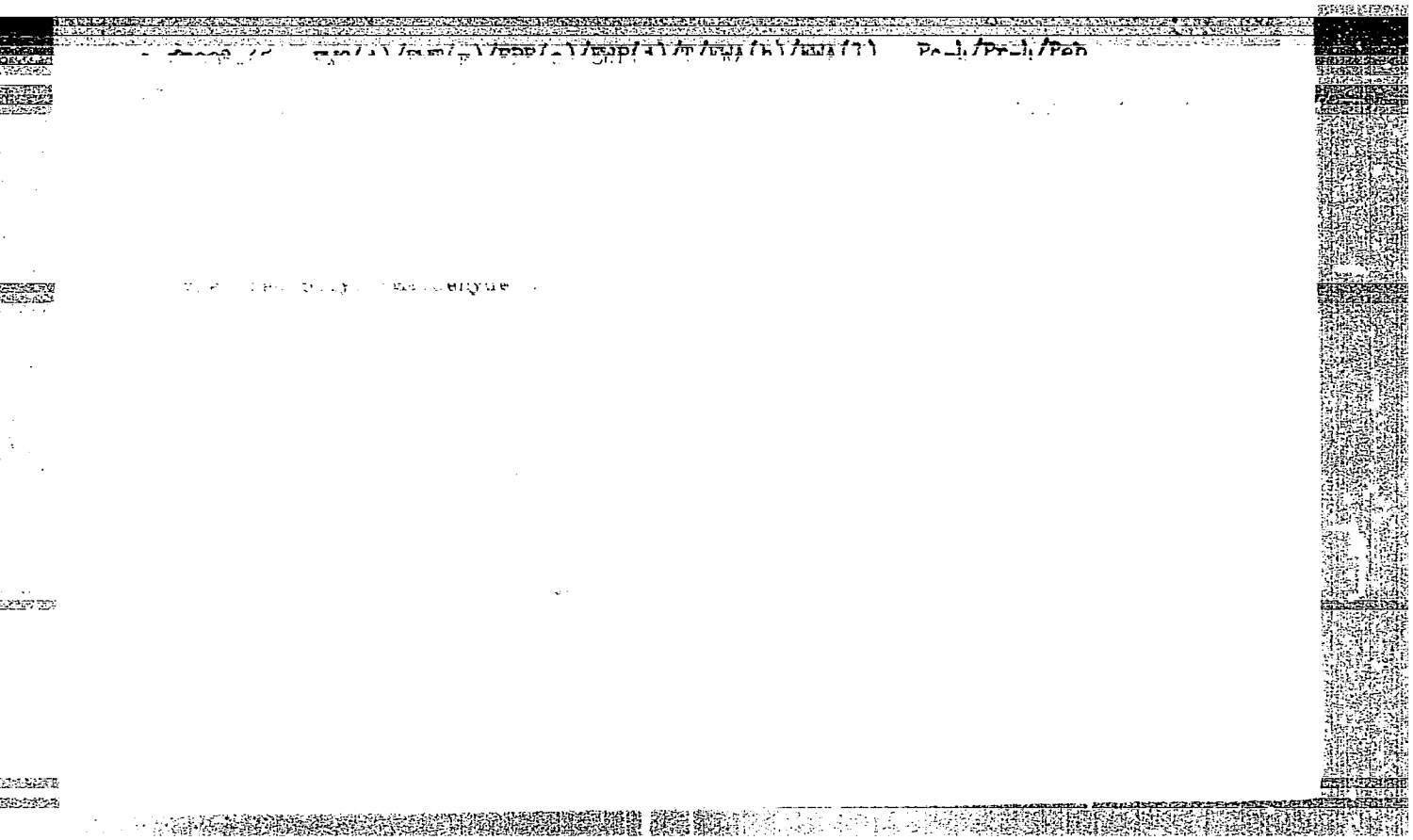
orientation declines, at the same time

mechanical properties of parts with different degrees of stretching, and the orientation

stresses become equalized, so that the warping tendency of the article is reduced. The

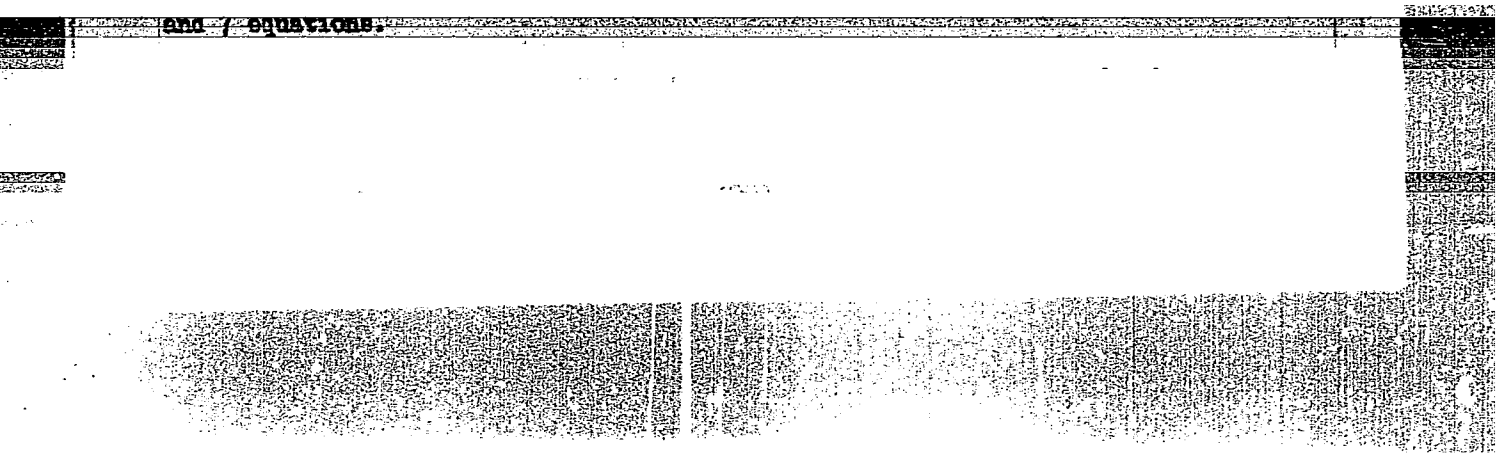
greater the degree of stretching of the material in a given direction, the more





oriented at 76°07' to the macroscopic crystal axis: Z-type crystallites are parallel

and / equations.



[redacted], A.V.; ANDREY, G.P.; PECHENKIN, A.A.; [redacted], L.A.; KOTRELEV, V.N.; AKUTIN, M.S.

Microscopic and X-ray diffraction study of the structure of polycarbonates in a block. Plast. massy no.3:43-46 '65.

(MIRA 18:6)

ACC NR: AP6000349 SOURCE CODE: UR/0286/65/000/021/0047/0047

AUTHORS: Sedov, L. N.; Li, P. Z.; Zotov, L. I.; Akutin, M. S.; Kargin, V. A.; Krupkina, F. A.

ORG: none

TITLE: Method for obtaining elastic copolymers. Class 39, No. 176062

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 21, 1965, 47

TOPIC TAGS: polymer, polymerization, polyester, polycondensation

ABSTRACT: This Author Certificate presents a method for obtaining elastic copolymers of unsaturated polyester resins with different monomers. To decrease shrinkage and the exothermic effect during hardening, the polyesters used are those obtained by condensation of unsaturated acids or their anhydrides with polyalkyleneglycols (e.g., with polytetramethyleneglycol) with molecular weight from 1000 to 40 000.

SUB CODE: 11/ SUBM DATE: 04May62

HW

Card 1/1

AKUTIN, M.S.; RODIVILOVA, L.A.; ZININ, Ye.F.

Study of the structural and mechanical properties of plasticized polyarylate D 4 type films and possibilities of their orientation. Plast. massy no.3:32-36 '65. (MIRA 18:6)

APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000100730003-7"

L 59381-65 EWT(m)/EPF(c)/EPR/EWP(j)/T Pc-4/Pr-4/Ps-4 RM

AUTHOR: Akutin, M. [illegible] Rudivilova, L. A., [illegible]

NO REF SOV: 000 OTHER: 000 ATD PRESS: 4047

Card 1/1

3

L 5298-66 EWT(m)/EPF(c)/EWP(j)/T RPL WW/JW/RM
ACC NR: AP5025037 SOURCE CODE: UR/0286/65/000/016/0084/0084

AUTHORS: Kotrelev, V. N.; Opolovenkov, A. F.; Kalinina, S. P.; Kuznetsova, O. I.; Savina, M. Ye.; Gus'kova, O. I.; Nagornaya, Yu. F.; Akutin, M. S.

ORG: none

TITLE: A method for obtaining grafted polymers. Class 39, No. 173949 announced by State Scientific Research Institute of Plastics (Gosudarstvennyy nauchno-issledovatel'skiy institut plastmass)

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 16, 1965, 84

TOPIC TAGS: polymer, grafted polymer, plastic, monomer, vinyl, fluorine

ABSTRACT: This Author Certificate presents a method for obtaining grafted polymers by grafting vinyl polymers to fluorine-containing polymers in the presence of an initiator. Cerium ammonium nitrate is used as the initiator.

SUB CODE: MT, GC SUBM DATE: 11Feb63/ ORIG REF: 000/ OTH REF: 000

Card 1/1 UDC: 678.743.41 66.097.3:546.39

09010693

NIKONOVA, S.N.; GOLUBENKOVA, L.I.; SHABADASH, A.N.; AKUTIN, M.S.

Reaction of organosilicon compounds with glass fibers. Plast. massy no.2:27-29 '66. (MIRA 19:2)

1. Submitted Jan. 12, 1965.

L 36102-66 EWT(m)/EWP(j)/EWP(k)/T/EWP(t)/ETI IJP(c) JD/AW/HW/GD/RM
ACC NR: AT6013171 (A) SOURCE CODE: UR/0000/60/000/000/0125/0131

AUTHORS: Akutin, M. S.; Parlashkevich, N. Ya.; Kogan, I. N.; Rubinshteyn, V. V. 73 71 B+1

ORG: none

TITLE: Feasibility of preparation of block and graft polymers by means of spark discharge

SOURCE: Moscow. Oblastnoy pedagogicheskiy institut. Primeneniye ul'traakustiki k issledovaniyu veshchestva, no. 12, 1960, 125-131

TOPIC TAGS: discharge chamber, capacitor graft copolymer, block copolymer, electric discharge, methacrylate plastic, fluorocarbon plastic, vinyl chloride / IM60-0.03 capacitor

ABSTRACT: High voltage spark discharge in solution, discussed previously by M. S. Akutin, N. Ya. Parlashkevich, L. I. Menes, I. N. Kogan, V. V. Rubinshteyn, and V. N. Kotrelev (Avtorsk. svid. No. 127392, 39S, prioritet 5 iyunya 1959 g.), is described as applied to the synthesis of block and graft polymers. The polymers prepared in this manner were those of fluoroethylenes and methylmethacrylate, also vinyl chloride and methylmethacrylate, with the emphasis on the latter type. The diagram of the equipment employed in this work is shown in Fig. 1, with the details of the discharge chamber illustrated in Fig. 2. R. N. Gribkova participated in the experimental stage of this work.

Card 1/2

L 36102-66

ACC NR: AP6013171

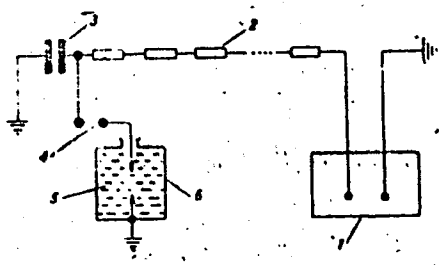


Fig. 1. Diagram of experimental set-up: 1 - high voltage rectifying apparatus. Rectified voltage is regulated in the range 50--100 kv; 2 - assembly of charge resistors; 3 - high voltage pulse capacitors, 0.056 microfarad (two parallel condensers of the IM60-0.03 type); 4 - "initiating" spark gap. Discharging rods are composed of two metallic spheres 35 mm in diameter; 5 - main (operating) discharge gap. Steel rod serves as positive electrode, bottom of the metal chamber serves as negative one; 6 - bath with the treated solution (see Fig. 2).

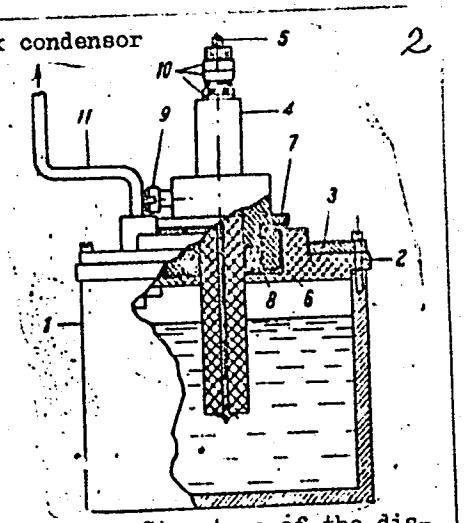


Fig. 2. Structure of the discharge chamber: 1 - cell; 2 - lid (teflon); 3 - collar; 4 - teflon cylinder; 5 - electrode; 6 - gasket seat (textolite); 7 - threaded pressure bushing (textolite); 8 - gasket (vacuum resin); 9 - bolt (vinyl plastic); 10 - nuts; 11 - glass tube.

Orig. art. has: 2 figures and 2 tables.

Card 2/2 LS SUB CODE: 07/ SUBM DATE: 31Oct60/ ORIG REF: 008/ OTH REF: 003

L 39719-66 EWT(m)/EWF(j)/T/EWP(v) IJP(c) RM/WW/GD-2
ACC NR: AP6007970 SOURCE CODE: UR/0191/66/000/003/0045/0047

AUTHOR: Nikonova, S. M.; Golubenková, L. I.; Shabadash, A. N.; Akutin, M. S. 19

ORG: none

TITLE: Reaction of dressing agent GVS-9 with binding agent FN-1

SOURCE: Plasticheskiye massy, no. 3, 1966, 45-47

TOPIC TAGS: organosilicon compound, polyester plastic, adhesion, spectrographic analysis

ABSTRACT: The author studied the nature of bonds formed between the organosilicon dressing GVS-9 and the acid polyester resin FN-1, which was obtained from diethyleneglycol and maleic and phthalic anhydrides in a 1:1;0.5 ratio. A 50% aqueous solution of GVS-9 (here the ester is converted into $CH_2{:}CHSi(OH)_3$) was heated for 1 hr at 140C until an infusible and insoluble product formed. The product obtained was separated, powdered, and mixed with polyester resin FN-1. One part of the mixture was kept for 2 hr at room temperature and the second part at 140C. To prevent oxidation, the mixture was heated in a N_2 atmosphere. The samples were washed with acetone in a Soxhlet apparatus for 6 hr and subsequently compressed to tablets with KBr for an infrared spectroscopic study. The spectra of the thermally hydrolized GVS-9 solutions and of the mixture of GVS-9 with FN-1 resin, which were processed at room temperature,

Card 1/2 UDC: 678.84+678.744.4

L 39719-66

ACC NR: AP6007970

were identical. At room temperature, the dressing agent did not react with the PN-1 resin, and the nonbond resin was subsequently washed out with acetone. The samples of PN-1 resin treated with GVS-9 at 140C had a 1725 cm^{-1} band, corresponding to the carbonyl group of the resin. The intensity of the 1600 cm^{-1}, corresponding to the vinyl group of GVS-9, decreased. A study was made of the effect of a GVS-9 dressing of PN-1 resin on the resin's adhesion to a fiberglass thread containing 58% SiO_2, 12% SiO, 14% Al_2O_3 + Fe_2O_3, and 12% B_2O_3, and 4% MgO. Fine threads of fiberglass (10-15μ) were treated with 5% aqueous solution of GVS-9 for 10-15 minutes, dried in air, then kept for 30 minutes at 140C. Dressed threads were subsequently treated with 67% PN-1 resin in a styrene solution. This reaction was performed either in hot or in cold solution with a subsequent heating. Dressing of glass fibers with GVS-9 increased markedly the adhesion of the PN-1 resin to their surfaces, especially when treated in a hot solution. The strength of resin-to-fiberglass bond was 382.5 or 307.5 kg/cm^2 with hot or cold solution treatment respectively. Orig. art. has: 1 fig. and 1 table.

SUB CODE: 07, 11/SUBM DATE: 12Jan65/ ORIG REF: 007/ OTH REF: 004

Card 2/2

L 39686-66 EWP(j)/EWT(m)/T IJP(c) RM/GD-2

ACC NR: AP6009533 (N) SOURCE CODE: UR/0413/66/000/005/0069/0069

INVENTOR: Pevzner, L. V.; Akutin, M. S.; Mikheyev, I. P.; Faydel', I. Ya.; Sokolov, A. D.; Timofeyev, A. V.

ORG: none

TITLE: Method for obtaining compacts. Class 39, No. 179466

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 5, 1966, 69

TOPIC TAGS: polyvinyl chloride, phenolformaldehyde, compact

ABSTRACT: An Author Certificate has been issued for a method of obtaining compacts by combining phenol resin with polyvinyl chloride in the filler, using a mechanochemical method. Phenol resins and aniline-phenolformaldehyde resins are used to obtain materials which are impervious to water, chemical, and tropical conditions. [NT]

SUB CODE: 11, 07/ SUBM DATE: 27Nov64/

Card 1/1 UDC: 678.632.743.22.067.023.32

L 37217-66 EWP(j)/EWT(m) RM/JWD

ACC NR: AP6018124 (A) SOURCE CODE: UR/0191/66/000/006/0024/0026

AUTHOR: Akutin, M. S.; Osipchik, V. S.; Asnovich, E. Z.

40
B

ORG: none

TITLE: Investigation of organosilicon oligomer curing processes

SOURCE: Plasticheskiye massy, no. 6, 1966, 24-26

TOPIC TAGS: siloxane, organosilicon compound, organoaluminum compound, oligomer, polymer structure, thermal analysis, curing agent

ABSTRACT: The effect of polyaluminoorganosiloxanes on the curing of organosilicon oligomers was studied by differential thermal analyses. The effects of 1-10%, on weight of the oligomer, of polyaluminophenyl siloxane (A) or polyaluminoethylsiloxane (B) on the structurization of polymethylsiloxane (I) and polymethylphenylsiloxane (II) oligomers were examined. Thermograms showed the phenyl radical in II shifted temperature effects to higher temperatures in comparison to I three-dimensional polymers were formed in the 260 and 190°C ranges, respectively. Addition of A to I caused little shift in temperature, but accelerated curing, while addition of B lowered hardening

Card 1/2 UDC: 678.84:678.028.294

L 37217-66

ACC NR: AP6018124

temperature to 132-160°C. Addition of A or B to II lowered the curing temperatures to 196 and 170°C, respectively. The action of A and B is attributed to the formation of coordination bonds between aluminum and the unshared electron pair of the oxygen in the polyorganosiloxane, causing a shift in electrons, weakening of the Si-O-Si bond and rupture of the rings. The ethyl radical in the polyaluminoorganosiloxanes has a stronger effect on cross-linking than the phenyl radical. Orig. art. has: 6 figures.

SUB CODE: 07/ SUBM DATE: none/ ORIG REF: 005/ OTH REF: 001

Card 2/2

L 43754-66 EWT(m)/EWP(j)/T IJP(c) WW/RM

ACC NR: AP6030845 (A, N) SOURCE CODE: UR/0191/66/000/009/0013/0016

34
33
B

AUTHOR: Israilov, D.; Rodivilova, L. A.; Akutin, M. S.

ORG: none

TITLE: Synthesis and investigation of phosphorus-containing polyaryl esters

SOURCE: Plasticheskiye massy, no. 9, 1966, 13-16

TOPIC TAGS: polyaryl ester, phosphorus containing polyaryl ester, thermal oxidative stability, fire resistant resin, ESTER, POLYARYL RESIN, INTERFACIAL POLY CONDENSATION

ABSTRACT: It is noted that such desirable properties of polyaryl esters as high softening points are also the cause of processing difficulties due to thermal-oxidative degradation. Because the presence of phosphorus in the polymer backbone was expected to improve thermal-oxidative stability, phosphorus-containing polyaryl esters were prepared. The method used was interfacial polycondensation of methyl-, vinyl-, β-chloroethyl-, or phenyl-phosphonic dichloride and bisphenol A. The reaction kinetics was studied and the optimum preparative conditions were determined. The polymers had a high molecular weight, a higher softening point (220—250C) than is usual for phosphorus-containing polyesters, high thermal-oxidative stability, good solubility, and were nonburning. Thermal and thermal-oxidative stability rose with increasing amount of phosphorus in the backbone as well as on going from a methyl to a phenyl substituent at the phosphorus atom. The unsaturated polyaryl esters from vinylphosphonic

Card 1/2 UDC: 678.85

L 43754-66

ACC NR: AP6030845

dichloride and (β-chloroethyl)phosphonic dichloride (after dehydrochlorination of the β-chloroethyl side group) were shown to lend themselves to cross-linking and copolymerization with unsaturated monomers in the presence of initiators and accelerators. [SM]
Orig. art. has: 3 tables and 4 figures.

SUB CODE: 07, 11/ SUBM DATE: none/ ORIG REF: 014/ OTH REF: 002/ ATD PRESS: 5074

Card 2/2 JS

L 38785-66 EWP(m)/EWT(1) WW

ACC NR: AT6023757 SOURCE CODE: UR/3149/66/000/003/0179/0198

AUTHOR: Akylbayev, Zh. S.; Isatayev, S. I.; Krashtalev, P. A.; Masleyeva, N. V.

ORG: Kazakh State University im. S. M. Kirov (Kazakhskiy gosudarstvennyy universitet)

TITLE: The effect of choking of a flow on the local heat transfer

SOURCE: Alma-Ata. Kazakhskiy nauchno-issledovatel'skiy institut energetiki. Problemy teploenergetiki i prikladnoy teplofiziki, no. 3, 1966, 179-198

TOPIC TAGS: coefficient of a uniformly heated cylinder, heat exchanger, propulsion, heat transfer coefficient

ABSTRACT: An experimental study was made of the effect of choking an air stream in a rectangular duct (150 mm x 150 mm x 900 mm) by heated cylinders positioned transversely 250 mm from the duct inlet. The pressure distribution on the cylinder surface and the local and mean heat transfer coefficients were determined at various choking coefficients 9 expressed in terms of the ratio of the cylinder diameter to the width of the duct. Theoretical and empirical formulas were derived for determining the local heat transfer coefficients close to the frontal critical point for q ranging from 0 to 0.9 and at Re nubmers of 10^3—2.10^5. A sharp variation in the local heat transfer coefficient was found in the rear region of the cylinder at q = 0.52—0.63. To explain this phenomenon, further aerodynamic investigations of the turbulent pulsations in the wake are required. Orig. art. has: 36 formulas and 12 figures. [PV]

SUB CODE: 20/ SUBM DATE: none/ ORIG REF: 010/ OTH REF: 014/

Card 1/1

ACC NR: AP7005547 SOURCE CODE: UR/0190/66/008/012/2195/2195

AUTHOR: Akutin, M.S.; Uvarov, A.V.; Ozerov, G.M.

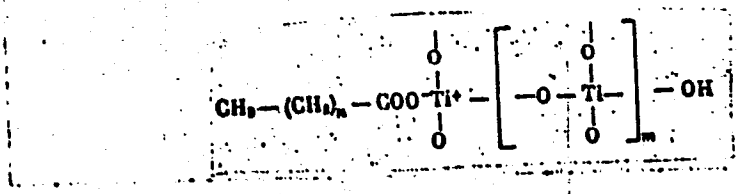
ORG: none

TITLE: Grafting of low-pressure polyethylene to the surface of titanium oxide

SOURCE: Vysokomolekulyarnyye soyedineniya, v. 8, no. 12, 1966, 2195

TOPIC TAGS: polyethylene, titanium oxide, ~~grafting~~, IR spectroscopy, CHEMISORPTION, METAL SURFACE IMPREGNATION

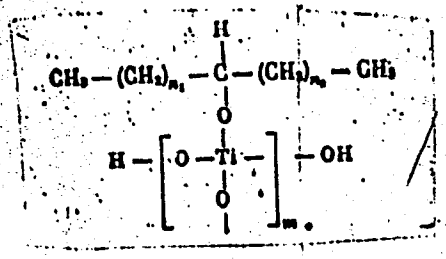
ABSTRACT: Grafting of low-pressure polyethylene (PE) on the surface of a solid body is reported. Chemisorption of PF particles on the surface of TiO_2 was established by IR-spectroscopy of specimens of PE filled with TiO_2. The spectra exhibited absorption in the 1400—1600 cm^{-1} range, which corresponds to compounds of the type



Card 1/2 UDC: 541.64+678.742

ACC NR: AP7005547

In addition, enhanced absorption was observed in the 1000—1200 cm^{-1} range of the spectrum which may correspond to the formation of bonds of the type



[BO]

SUB CODE: 11, 07/ SUBM DATE: 26Nov65/ ORIG REF: 004/ OTH REF: 001
ATD PRESS: 5114

Card 2/2

LAVRINENKO, S.; AKUTIN, V., bul'dozerist; MUKHACHEV, A., ekskavatorshchik

Advantages of preheaters for diesel engines. Stroi. truboprov. 10 no.1:35-36 Ja '65. (MIRA 18:4)

1. Stroitel'no-montazhnoye upravleniye No.8 tresta Nefteprovodmontazh, Yakutsk. 2. Glavnyy mekhanik Stroitel'no-montazhnogo upravleniya No.8 tresta Nefteprovodmontazh, Yakutsk (for Lavrinenko).

AKVONEN, V.A.

Rapid silicate analysis using trilon B. Trudy Kar. fil. AN SSSR no.11:292-296 '59. (MIRA 13:2)
(Silicic acid) (Acidic acid)

S/137/63/000/002/010/034
A006/A101

AUTHOR: Akylbekov, A.

TITLE: Separation of germanium out of sulfuric-acid solutions by the cementation method

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 2, 1963, 26, abstract 2G150 ("Sb. tr. Vses. n.-i. gornometallurg. in-t tsvetn. met.", 1962, no. 7, 172 - 178)

TEXT: The author studied the effect of acidity of the solution, temperature, and duration of mixing, upon the degree of Ge reduction from sulfuric acid solutions of Zn-metal and Zn-dust. The standard solution was prepared from Ge metal by its decomposition with 5% H_2O_2 with addition of 10% NaOH. The temperature varied from 20 to 75°C. It was established that Ge reduction from sulfuric acid solutions on a Zn-plate is expedient to be conducted at lower temperature and an acidity of the solution of 20 - 50 g/l H_2SO_4 during 1 to 2 hours. During the reduction of Ge with Zn dust its cementation degree is lower than on Zn plates.

[Abstracter's note: Complete translation]

G. Svodtseva

Card 1/1

4

29424
S/081/61/000/017/073/166
B101/B102

18.3100 1521 1087 1454

AUTHORS: Teyb, P. P., Getskin, L. S., Vartanyan, A. M., Fel'dman, V. G., Anosova, T. V., Akylbekov, A. A., Levina, A. A., Chepik, M. N.

TITLE: Extraction of indium from dusts of lead plants

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 17, 1961, 329, abstract 17K150 (Sb. nauch. tr. Vses. n.-i. gornometallurg. in-t tsvetn. met., no. 6, 1960, 377-388)

TEXT: Indium-containing dusts of lead plants are granulated with strong H_2SO_4, and the resulting granules are thermally treated in a pseudoliquid layer in a furnace at 300-350°C in order to sublimate most of the As. The hydrates, including that of indium, are precipitated by adding ZnO to the sulfuric acid solution. Subsequently, As is washed out with 10% NaOH, and the residue is dissolved in H_2SO_4 in order to remove Pb. Cu is removed from the solution by cementation with cast-iron filings, after which In is precipitated with NaOH solution. The resulting concentrate,

Card 1/2

4

29424
S/081/61/000/017/073/166
B101/B102

Extraction of indium from ...

which contains 2-8% of In, is again dissolved in H_2SO_4, As and Sb are cemented with cast-iron filings, In is again precipitated with NaOH solution, and the precipitate is dissolved in HCl. From this solution, In is cemented on Al plates. The resulting sponge is treated with dilute H_2SO_4, from which indium is precipitated by neutralizing with NH_3. The resulting indium hydroxide is dissolved in HCl, and indium is again cemented on Al plates. Thus, a raw product with 97-98% of In is obtained, which is purified by dissolution in Hg and by electrolysis of the amalgam. About 60% of In is thus extracted from the initial dust. Cu, Te, Tl, Cd, and Pb are also obtained when the dust is processed. [Abstracter's note: Complete translation.]

Card 2/2

AKYLBEKOV, K. K.

"The Experimental Roentgenization of Recipients as a Method of Overcoming the Incompatability of Tissues After Homoplasty of the Skin." Cand Med Sci, Georgian State Medical Inst, Frunze, 1954. (KL, No 7, Feb 55)

SO: Sum. No. 631, 26 Aug 55 - Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (14)

BRAUM, A.A.; AKYLBEKOV, K.M.

Effect of preliminary X-ray treatment of the recipient in skin homoplasty in rats. Dokl.AN SSSR 95 no.6:1351-1354 Ap '54. (MLRA 7:5)

1. Kirgizskiy gosudarstvennyy meditsinskiy institut.
Predstavleno akademikom A.I.Abrikosovym.
(Skin--Grafting) (X rays--Physiological effect)

USSR / General Biology. Individual Development. B

Abs Jour : Ref Zhur - Biol., No 19, 1953, No 85600

Author : Akyl'bekov, K.M.
Inst : Kirgiz Medical Institute.
Title : Overcoming Tissue Incompatibility of Skin Homoplasticity in Mammals by Preliminary X-Ray Treatments of the Recipient.

Orig Pub : Tr. Kirg. Med. In-t, 1956, 8, 72-77.

Abstract : A general skin homoplastic operation was performed from 1 - 5 day old rats onto the backs of pubescent rats 2 - 3½ months old. To overcome tissue incompatibility, the recipient was irradiated on the back by X-rays in doses of 500 and 250 r for 1 day prior to transplantation. In control experiments, without irradiation, in the overwhelming majority of the cases, the duration

Card 1/2

KHVOROSTUKHIN, I.I.; AKYLBEKOV, K.M.

Modification of immunoreactive properties in rabbits following their exposure to x-rays. Zhur. mikrobiol. epid. i immun. 29 no.10: 138 O '58. (MIRA 11:12)

1. Iz kafedry gistologii Kirgizskogo meditsinskogo instituta, Frunze.
(ROENTGEN RAYS, effects,
on immun. reactions in rabbits (Rus))
(IMMUNITY, effect of radiations
x-rays, in rabbits (Rus))

AKYLBEKOV, K.M.; KHVOROSTUKHIN, I.I.

Age differences in the antigenic properties of the skin. Biul.eksp. biol. i med. 51 no.1:94-96 Ja '61. (MIRA 14:5)

1. Iz kafedry gistologii (zav. - prof. A.A.Braun) Kirgizskogo gosudarstvennogo meditsinskogo instituta (dir. F.N.Nurgaziyeva), Frunze. Predstavlena deystvitel'nym chlenom AMN SSSR N.N.Zhukovym-Verezhnikovym.
(AGING) (SKIN) (COMPLEMENTS (IMMUNITY))

AKZHIGITOV, A.

Grading only cured hides. Mias.ind.SSSR 30 no.1:24 '59.
(MIRA 12:4)

1. Inspektsiya po kachestvu tekstil'nogo, kozhevennogo i pushnomekhovogo syr'ya po Kazakhskoy SSR.
(Semipalatinsk--Hides and skins)

AKZHIGITOV, G.N.

Progressive epifascial gangrene. Sov.med. 23 no.10:144-145 O '59.
(MIRA 13:2)

1. Iz khirurgicheskogo otdeleniya Kamyshinskoy gorodskoy bol'nitsy No.1 (glavnyy vrach O.G. Rubtsova) Stalingradskoy oblasti.
(GANGRENE case reports)

AKZHIGITOV, G.N. (Kamyshin Stalingradskoy oblasti)

Feldsher's mistakes in diagnosis and in giving first aid to patients with acute surgical diseases. Fel'd. i akush. 24 no.7: 36-38 Jl '59. (MIRA 12:10)

(DIAGNOSIS)

AKZHIGITOV, G.N.

Cancer of the vermiform appendix. Khirurgiia 35 no.3:124-125 Mr '59. (MIRA 12:8)

1. Iz khirurgicheskogo otdeleniya (zav. G.N.Akzhigitov) Kamyshinskoy gorodskoy bol'nitsy (glavnyy vrach O.G.Rubtsova) Stalingradskoy oblasti.
(APPENDIX, neoplasms
adenocarcinoma (Rus))

AKZHIGITOV, G.N. (Stalingradskaya obl., Krasnoslobodsk, Kolkhoznaya ul. d.2)

Embryonal hernia. Vest.khir. 83 no.8:130-131 Ag '59.

(MIRA 13:1)

1. Iz Krasnoslobodskoy gorodskoy bol'nitsy (gl.vrach - T.P. Kostryukova) Stalingradskoy oblasti.

(HERNIA, UMBILICAL case reports)

AKZHIGITOV, G.N.

Organization of the blood service in the district hospital. Zdrav. Ros.Feder. 4 no.2:27-30 F '60. (MIRA 13:5)

1. Iz khirurgicheskogo otdeleniya (zav. G.N. Akzhigitov) Kamyshinskogo bol'nichno-poliklinicheskogo ob"yedineniya (glavnyy vrach T.A. Gubina).
(KAMYSHIN (STALINGRAD PROVINCE)--BLOOD--COLLECTION AND PRESERVATION)

AKZHIGITOV, G.N. (Stalingrad)

Profuse hemmorrhage in erythremia. Klin.med. 38 no.11:121-122 N '60. (MIRA 13:12)

1. Iz khirurgicheskogo otdeleniya (zav. G.N. Akzhigitov) Kamyshinskoy gorodskoy bol'nitsy (glavnyy vrach T.A. Gubina) Stalingradskoy oblasti.

(ERYTHREMIA) (HEMORRHAGE)

AKZHIGITOV, G.N.

Complications following blood transfusion, their prevention and treatment. Med. sestra 20 no.4:21-25 Ap '61. (MIRA 14:5)

1. Iz khirurgicheskogo otdeleniya Kamyshinskoy gorodskoy bol'nitsy Stalingradskoy oblasti.

(BLOOD—TRANSFUSION)

AKZHIGITOV, G. N.

Acute cholecystitis following closed injury of the abdomen. Khirurgiia 37 no.7:134 Jl '61. (MIRA 15:4)

1. Iz khirurgicheskogo otdeleniya (zav. G. N. Akzhigitov) Kamyshinskoy gorodskoy bol'nitsy (glavnyy vrach T. A. Gubina) Stalingradskoy oblasti.

(GALL BLADDER--DISEASES)
(ABDOMEN--WOUNDS AND INJURIES)

AKZHIGITOV, G. N.

Evaluation of the condition of the blood circulation in lung diseases. Khirurgiia no.2:18-25 '62. (MIRA 15:2)

1. Iz kafedry fakul'tetskoy khirurgii (zav. - prof. N. N. Yelanskiy) lechebnogo fakul'teta I-go Moskovskogo ordena Lenina meditsinskogo instituta imeni I. M. Sechenova.

(BLOOD—CIRCULATION, DISORDERS OF)
(LUNGS—DISEASES)

AKZHIGITOV, G.N.

Cancer of the stomach and tuberculosis of the liver. Khirurgiia no.3:103-104 '62. (MIRA 15:3)

1. Iz kafedry fakul'tetskoy khirurgii (zav. - zasluzhennyy deyatel' nauki prof N.N. Yelanskiy) I Moskovskogo ordena Lenina meditsinskogo instituta imeni I.M. Sechenova.
(STOMACH--CANCER) (LIVER--TUBERCULOSIS)

AKZHIGITOV, G.N.; VOLKOVA, R.A.; TENENSHTOK, S.I.

Hemodynamic changes in patients with thyrotoxicosis during compound preoperative preparation. Khirurgiia 39 no.9:52-56 S'63 (MIRA 17:3)

1. Iz kafedry fakul'tetskoy khirurgii lechebnogo fakul'teta (zav. - zasluzhennyy deyatel' nauki prof. N.N. Yelanskiy) I Moskovskogo ordena Lenina meditsinskogo instituta imeni Sechenova.

SHKROB, O.S.; AKZHIGITOV, G.N.

Indications and contraindications to the surgical treatment of primary carcinoma of the lung. Grud. khir. 5 no.6:75-79 N-D'63 (MIRA 17:2)

1. Iz kafedry fakul'tetskoy khirurgii (zav. - prof. N.N. Yelanskiy) I Moskovskogo ordena Lenina meditsinskogo instituta imeni I.M.Sechenova. Adres avtorov: Moskva, B.Pirogovskaya ul., d. 2/6, kafedra fakul'tetskoy khirurgii I Moskovskogo ordena Lenina meditsinskogo instituta imeni I.M.Sechenova.

AKZHIGITOV, G.N.

Oxyhemographic determination of blood circulation time. Khirurgiia no.1:106-109 '63. (MIRA 17:5)

1. Iz fakul'tetskoy khirurgicheskoy kliniki lechebnogo fakul'teta (zav. - zasluzhennyy deyatel' nauki prof. N.N. Yelanskiy) I Moskovskogo ordena Lenina meditsinskogo instituta imeni I.M. Sechenova.

AKZHIGITOV, G.N.

Indications for surgical therapy of chronic pulmonary suppurations and tumors. Sov. med. 27 no.8:49-54 Ag '64. (MIRA 18:3)

1. Kafedra fakul'tetskoy khirurgii (zav.- prof. N.N. Yelanskiy) I Moskovskogo ordena Lenina meditsinskogo instituta imeni Sechenova.

AKZHIGITOV, G.N.

Individualization of the stain dose in oxyhemometric determination of the blood circulation time. Sov. med. 28 no.7:48-50 Jl '64. (MIRA 18:8)

1. Kafedra fakul'tetskoy khirurgii (zav. - prof. N.N.Yelanskiy) I Moskovskogo ordena Lenina meditsinskogo instituta imeni Sechenova.

BABICHEV, S.I., prof. AKZHIGITOV, G.N., kand. med. nauk

Primary multiple cancer of the stomach. Khirurgiia 40 no.4: 88-91 Ap '64 (MIRA 18:1)

1. Iz gospital'noy khirurgicheskoy kliniki (zav. - deystvitel'nyy chlen AMN SSSR prof. B.V. Petrovskiy) I Moskovskogo ordena Lenina meditsinskogo instituta imeni I.M. Sechenova.

AKZHIGITOV, G.N.

Acceleration of the blood circulation as a compensation factor in acute respiratory insufficiency following pulmonary surgery. Vest. khir. 93 no.8:24-28 Ag '64. (MIRA 18:7)

1. Iz fakul'teskoy khirurgicheskoy kliniki (zav. - prof. N.N. Yelanskiy) 1-go Moskovskogo ordena Lenina meditsinskogo instituta imeni Sechenova (rektor - prof. V.V.Kovanov).

KHAR'KOVSKIY, N.N.; AKZHIGITOV, G.N.

Laparoscopic cholecystocholangiography. Eksper. khir. i anest. no.1:57-61 '65. (MIRA 18:11)

1. Gospital'naya terapevticheskaya klinika (zav. - deystvitel'nyy chlen AMN SSSR prof. A.L. Myasnikov) i TSentral'naya nauchno-issledovatel'skaya laboratoriya (zav. - kand. med. nauk A.S. Chechulin) I Moskovskogo ordena Lenina meditsinskogo instituta imeni I.M. Sechenova.

AKZHIGITOV, G.N. (Kamyshino)

Diabetes insipidus following fracture of the basis cranii; abstract. G.N. Akzhigitov. Kaz.med. zhur. no.1:109 J-F'61 (MIRA 16:11)

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